AN ANALYSIS OF THE RENTAL MARKET

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AN ANALYSIS OF THE RENTAL MARKET

1. OBJECTIVE

The objective of this paper is to provide an analysis of the present state of the rental market and to identify the key factors that are important in the development of a rental housing strategy for the federal government.

2. BACKGROUND

Between 1968 and 1973, apartment starts averaged 104 000 a year. In the period 1980 to 1983, the average level of activity was down to 52 000 units annually. Last year, there were only 44 100 apartment starts, the lowest volume of production in the past 21 years.

The rental vacancy rate has also been declining steadily in the past 20 years. The average rate was 4 per cent in the 1963 to 1970 period, 2.5 per cent in the 1971 to 1978 period, and 2.2 per cent in the 1979 to 1983 period.

The proportion of renters in the top three income quintilea has decreased since 1972 and the proportion in the two lowest income quintiles has increased correspondingly from 46 to 57 per cent. This has had the effect of increasing the incidence of renters paying more than 30 per cent of income on rent. In 1981, the number of renters in thia category waa eatimated at alightly more than 500 000 or about 16 per cent of the renter population.

Before the introduction of the MURB program in 1974, the emphasia of federal rental policies was aseistance to low income renters through the Limited Dividend Program. Under the program, CMHC made direct preferred interest rate mortgages to landlords. The rents of L.D. units were below market levels and administered, and eligibility was restricted to tenants with incomes not exceeding four times the rent. Complementing the L.D. Program was the provision of public housing jointly with the provinces.

The introduction of MURBs in the November 1974 federal budget witnessed the beginning of a mixture of market and social rental policies. The key market oriented programs were the MURB program between 1974 and 1981, the ARP program between 1976 and 1978 and the CRSP program between 1982 and 1983. On the eocial side, the L.D. Program was terminated in 1975, and the Non-Profit and Co-Operative and the Rent Supplement Programs have become the main instruments to deliver socially-aasiated rental housing.

A recent study commiaaioned by the Canadian Home Builders' Association estimated that the combined federal and provincial expenditures on the various rental programs amounted to $5.5 billion in current dollars in the period 1976 to 1982. Relating these expenditures to the declining starts levels, the tightening of vacancy rates and worsening affordability have raised the issue of the appropriateness of the current mix of federal rental policies in addressing the problems in the rental market.

There are also concerns over the extent to which the effectiveness of the present and paat rental programs has been compromised by the continuation of rent controls in moat of the provinces, and by the trend toward landlord and tenant legislation strengthened to the benefit of tenants in some cases. There is some evidence that several large developers are disinvesting in residential rentals or are shifting their assets toward commercial properties and increasing their operation in the United States. Observers of the rental industry are singling out over-regulation and increased uncertainty as the primary causes.

The increasingly regulated rental market is not only just discouraging landlords, it is also increasing the complexity for federal involvement as it must operate, at least cost, in an environment constrained and influenced by provincial policies.

A companion discussion paper "Future Directions For Social Housing Policy" commenced the process of new federal strategies by addressing the key issue of the affordability problems of homeowners and renters. It concluded that

with increasingly more and more renter households paying more than 30 per cent of income for rent, low income renter households must be the first priority for government action. Shelter allowances and a system of rent supplements were some of the policy options suggested.

To the extent that shelter allowances or a system of rent supplements will expand the demand base for rental housing, there are concerns as to the ability of the market to respond with increased supply. These concerns are grounded on the declining starts levels and the appearance of the inability of starts to react to low vacancy rates in the past several years.

3. FACTORS

This chapter will analyze the demand for and supply of rental housing over discrete time intervals as opposed to the entire stock of rental dwellings at a point in time. This distinction is important and will focus the analysis on the dynamics of the rental market.

The demand for rental housing is determined principally by population. However, the timing of the demand can be influenced by a number of factors such as incomes, rents, supply bottlenecks and government intervention. These factors define the fluctuations in demand and shape the relationships between short-run cycles and long-term trends of rental demand.

The provision of rental housing is mainly a private sector initiative. Investing in rentals can be in the form of acquiring existing properties or building new structures. The determinants are the rate of return and the certainty of the investment in relation to other investments with similar risk characteristics. In the case of new buildings, the investment decision also depends on the strength of underlying demand and is also influenced by government actions. Government actions such as rent controls also affect investment in existing rentals.

Government actions are motivated by three broad objectives. First, the redistribution of income and assistance to those renters who cannot compete effectively in the marketplace. Second, the stabilization of short-run fluctuations and incentives to effect more expeditious market adjustments in correcting supply-demand imbalances. Third, the correction of distortions unintentionally created by other levels of government such as provincial rent controls, and the minimization of disruptions caused by major policy shifts such as the termination of the 8-year MURB program and the simultaneous introduction of the CRSP program.

The impacts and the interrelationships of these factors will be analyzed in this chapter. The analysis will attempt to examine the evidence with a view to establishing whether it lends support to the conclusion of serious failure in the rental market or whether it simply reflects changing market conditions.

The analysis will be divided into 4 sections: demand for and affordability of rental housing, market signals and the functioning of the rental market, economics and profitability of rental investment, and the impacts of government intervention.

3.1 Demand Factors

According to the 1981 Census, there were 3 140 000 private renter households in Canada. In 1971, the number was 2 396 000. The difference of 744 000 was the demand for rental housing between 1971 and 1981. In the context of housing, demand is a flow concept which measures the incremental change in the stock of renter households between two points in time.

The primary determinants of rental demand are the level of population reaching the household formation ages and the tenure choice of the newly formed and existing households. The propensity to form households and tenure choice are in turn influenced by economic variables such as employment opportunities, incomes, interest rates and government policies.

The Baby Boom Generation

The housing boom in Canada began in 1968 and ended in 1979. During the 12-year period, dwelling starts totalled slightly more than 2.7 million units or an average of 229 000 starts a year and added nearly 32 per cent to the stock of housing. The housing boom was one of the legacies of the post-war baby boom generation. The baby boom generation was caused by a combination of high fertility rates and a large number of females reaching the child producing age between 1952 and 1965.

Table 3.1.1 Impact Of The Baby Boom On Residential Construction

Baby Boom	1938-1951	1952-1965	1966-1979
Number of Years	14	14	14
Total Births	4 357 000	6 331 000	5 066 000
Annual Average	311 000	452 000	362 000
Housing Boom	**1956-1967**	**1968-1979**	**1980-1983**
Number of Years	12	12	4
Total Starts	1 700 000	2 747 000	625 000
Annual Average	142 000	229 000	156 000

The requirement to house the baby boom generation began to be felt in the late 1960's. In the early 1960's, the growth in renter households is estimated at 66 000 a year. In the early 1970's, rental requirements accelerated to roughly 107 000 annually. The housing industry responded to this upsurge in demand and produced record high rental starts. The aging and the movement of the baby boom generation from renter tenure to home-ownership in the second half of the 1970's marked the beginning of the decline in rental production.

Table 3.1.2 Impact Of The Baby Boom Generation On the Composition Of Housing Starts*

	Pre-Boom	Housing Boom		Post-Boom
	1962-67	1968-73	1974-79	1980-83
Number of Years	6	6	6	4
Total Apartment Starts	379 000	623 000	462 000	207 000
Annual Average	63 000	104 000	77 000	52 000
Total Singles Starts	447 000	570 000	708 000	334 000
Annual Average	75 000	95 000	118 000	83 000
Annual Average Singles and Apartment Starts	138 000	199 000	195 000	135 000

* Apartment and single-detached starts are taken as proxies for rental and home-ownership, respectively.

Future Rental Requirements

The decline in child births since the second half of the 1960's and the prevailing stringent immigration policies combine to suggest demographics unfavourable to rental construction in the foreseeable future. While there is some disagreement with respect to the magnitude of the downturn in rental demand, there is consensus that fewer new rental dwellings will be required. This is based on the projection of a slower rate of household formation in the predominatly renter age group of 15 to 34.

Table 3.1.3 Household Formation And Tenure Choice By Age Of Head

Age Group	15-34	35-54	55+	TOTAL
	Actual And Projected Household Formation			
1971-76	588 200	220 900	326 200	1 135 300
1976-81	446 400	317 300	351 800	1 115 500
1981-86*	267 800	426 900	294 600	989 300
1986-91*	117 500	526 100	243 000	886 600
	Tenure Choice, 1981			
Renter	56.3%	26.3%	32.1%	37.9%
Owner	43.7	73.7	67.9	62.1
Total	100.0	100.0	100.0	100.0

*Statistics Canada Projection Series B. (Cat. 91-522)

The projections in Table 3.1.3 are heavily influenced by the high household formation rates in the 1970's. This period was characterized by rapid economic growth and generally low rates of youth unemployment. Between 1970 and 1979, the average unemployment rate in the age group of 15 to 24 was 11.7 per cent. In 1983, the average rate was 19.9 per cent. If youth unemployment continues to remain at high levels, as most forecasters are predicting, the decline in total household formation would be larger than had been expected.

Table 3.1.4 Household Formation by Tenure

	5-Year Total			Annual Average		
	Renter	Owner	Total	Renter	Owner	Total
1961-66	357 600	264 400	622 000	71 500	52 900	124 400
1966-71	489 700	364 600	854 300	97 900	72 900	170 800
1971-76	338 600	796 600	1 135 200	67 700	159 300	227 000
1976-81	404 700	710 700	1 115 400	80 900	142 100	223 000
1981-86*	357 600	631 700	989 300	71 500	126 300	197 800
1986-91*	282 500	604 100	886 600	56 500	120 800	177 300

* Statistics Canada Projection Series B (Cat. 91-522) and 1981 tenure choice.

Based on the tenure choice pattern in the 1981 Census, fewer new rental dwellings will be required, and to the extent that the high youth unemployment rate would only ease gradually, actual renter household formation and thus the level of construction over the next several years is likely to be below the projected requirement levels. This should not be misinterpreted as underproduction, nor would the reduction in effective demand represent a permanent loss. The anticipated high levels of youth unemployment will simply delay the household formation process until conditions improved.

Tenure Choice

In housing literature, the interaction of homeownership and rental markets is usually conceptualized as a filtering process. This filtering process can be described as a chain of housing turnovers generated by households making favourable readjustments with respect to tenure choice, housing space, quality and location. Because of the tax advantages, security of tenure and investment opportunities of homeownership, filtering in the rental market begins with renters attracted to the homeownership market.

Table 3.1.5 Homeownership Propensity

Age of Household Head	Per Cent of Owner Households				
	1961	1966	1971	1976	1981
Under 25	23.9	16.4	14.3	19.0	18.3
25-34	49.8	46.1	42.9	51.6	52.1
35-44	67.5	67.2	67.1	70.9	72.0
45-54	73.2	72.5	72.5	74.3	75.8
55-64	75.1	72.8	71.5	71.9	73.6
65 and over	77.0	72.1	67.8	64.3	63.0

Table 3.1.5 shows that events in the 1970's have reversed the trend of generally declining incidence of homeownership. The non-taxation of capital gains on principal residence and imputed rent on housing services, the attractiveness of leveraged equity investment in an inflationary environment and incentives such as RHOSP and other short-term home purchase assistance programs at both federal and provincial levels have firmly established homeownership as the preferred form of housing. Recently, the proposal to create a Mortgage Rate Protection Program further reinforces the commitment of the federal government toward the security of homeowners.

The effect of favouring homeownership is to reduce rental to a residual market. The residual role of rental was evident in most of 1981 and 1982 when high interest rates restricted access to homeownership by first time buyers and thereby added more pressure to an already tight rental sector. In 1983, the surge in house-buying made possible by the $3 000 CHOSP grant and lower interest rates pushed rental vacancy rates up rapidly. Despite fewer apartment completions in 1983, the national vacancy rate rose to 2.7 per cent from 1.7 per cent in 1982.

The experience in the past 3 years demonstrates that the instability of housebuying adds to the instability of the rental market. From a stabilization policy standpoint, a smoothly functioning homeownership market is a necessary condition for a stable rental sector.

Affordability Of Rental Housing

Another implication of favouring homeownership is to drive a deeper wedge between the socio-economic characteristics of typical homeowners and renters.

In the last 2 decades, the mix of renter population has been changing gradually. According to the 1981 Census, the combined proportion of the youngest (15-24) and the oldest (65+) renter households was up to 34 per cent. In 1961, the comparable figure was 20 per cent. This trend was caused by the corresponding decline in the 35-54 age group from 39 to 25 per cent as homeownership became increasingly attractive to higher income renter households.

Table 3.1.6 Distribution Of Renter Households By Age Of Head

Age Of Head	1961	1971	1981	Trend
15-24	8.8%	14.7%	17.5%	Increasing
25-34	30.4	30.1	31.1	Steady
35-44	22.5	17.2	14.2	Declining
45-54	16.2	13.4	10.6	Declining
55-64	11.0	11.4	10.2	Steady
65+	11.1	13.2	16.4	Increasing
Total	100.0	100.0	100.0	

The increased concentration of renter households among the two ends of the age distribution, coupled with the fact that the earning power of these renters is typically lower suggest that the income differential between renters and homeowners has increased. In 1971, the average renter household income was 78 per cent of the average household income of homeowners. In

1981, the ratio was down 17 percentage points to 61 per cent.

While there is little doubt that income of homeowners has generally risen faster than income of renters in the 1970's, the comparison based on averages has to be interpreted in the context of the structural changes in the age profile of renters.

Table 3.1.7 Affordability Of Housing By Tenure, 1981*

Shelter Cost As A % Of Income	Renter Household** Number	Renter Household** Per Cent Distribution	Owner Household** Number	Owner Household** Per Cent Distribution
Less Than 15%	883 200	28.5(28.5)	2 410 800	49.2(49.2)
15-19	548 000	17.7(46.2)	757 300	15.5(64.7)
20-24	432 200	14.0(60.2)	574 700	11.7(76.4)
25-29	289 300	9.3(69.5)	374 700	7.7(84.1)
30-34	189 500	6.1(75.6)	226 000	4.6(88.7)
35-39	133 700	4.3(79.9)	135 700	2.8(91.5)
40-49	178 300	5.8(85.7)	143 500	2.9(94.4)
50+	443 600	14.3(100.0)	273 800	5.6(100.0)
Total	3 097 800	100.0	4 896 500	100.0

* See Appendix 1 for details.

** Gross Rent as a per cent of 1980 household income. Figures in parentheses are cumulative distribution. Owner's major payments as a per cent of 1980 household income. Figures in parenthese are cumulative distribution.

The structural changes in the age composition of renter households have made the problem of affordability more acute. Based on a 30 per cent shelter cost to income ratio, the 1981 Census shows that about 945 000 renters or 30.5 per cent of the total were exceeding that threshold. More importantly, nearly half of that 945 000 renters with affordability problems totalling some 443 600 households have a shelter cost to income ratio in excess of 50 per cent.

Based on the 1982 HIFE Survey, the number of renter households paying more than 30 per cent of income on rent was 723 000 in 1981. The discrepancy between the 1981 Census and 1982 HIFE is attributable to technical problems and differences in definitions. This is discussed in Appendix 1. When those occupying subsidized rental housing and those over-consuming rental housing are excluded, the number of renter households still paying more than 30 per cent of income on rent declines to slightly more than 500 000. This number is usually referred as the core need.

In contrast, 779 000 owner households amounting to 15.9 per cent of the total were defined as having affordability problems based on a 30 per cent GDS criterion. Out of the 779 000 cases, 35 per cent or 273 800 fell into the GDS extreme of more than 50 per cent.

Table 3.1.8 Family Composition Of Renters With Affordability Problems, 1981

Shelter Cost To Income Ratio	Less Than 30 Per Cent	More Than 30 Per Cent	Total
One-Family Households Without Additional Persons	1 190 300	398 400	1 588 700
Non-Family Households Of One Person Only	671 200	453 500	1 124 700
All Others	291 400	93 000	384 400
Total	2 152 900	944 900	3 097 800

Table 3.1.8 shows that 48 per cent of the renters with affordability problems were one-person households. The average income of non-family one person households was $12 200 in 1981 or approximately half the average of all household income of $24 600. As noted earlier, there were 443 600 renter households with a shelter cost to income ratio exceeding 50 per cent in 1981. Half of these renters were non-family one person households.

The average rent in 1981 was $296 per month and 63.8 per cent of the rental units were rented at below the average. This significant skewing of the rent distribution to the left of the average appears to suggest that the incidence of affordability is not due to high rents, rather, the problem is related to the low incomes earned by a sizeable number of renters.

3.2 Market Signals

The efficient allocation of resources in a market system requires the ability of markets to self correct supply-demand imbalances. In the case of rentals, the market is required to bring supply and demand to an equilibrium through a set of changing market signals. Failure in transmitting market signals means the inability of rental starts to respond to excess supply or excess demand in a manner that will restore the normal functioning of the market.

The indicators of excess supply or excess demand are the rate of vacancy and the duration of vacancy. Changes in these indicators will also lead to changes in other related variables. When excess demand occurs, the rate and duration of vacancy will decline and rent will be bid up in the absence of controls. The combination of higher occupancy rate and higher rent will push profits up and provide an incentive for suppliers of rental housing to increase the rate of starts.

Availability of Rental Housing

In the previous section, the demand for rental housing was defined as the incremental change in the stock of renter households between two points in time. Following this flow concept, the supply of rental housing is composed of new completions and net conversions to rental tenure less demolition. These two components are additions to the rental stock.

The availability of rental housing is also influenced by the number of dwellings left vacant by renters purchasing homes and the level of vacancies. These two represent turnover in the rental market.

Table 3.2.1 Estimated Composition Of
Availability Of Rental Housing, 1976-81

Source	Annual Average	Per Cent Of Stock	Distribution By Source
Addition to Stock	81 000	2.8%	29.5%
Renters Purchasing Homes	120 000	4.1	43.6
Vacancies*	74 000	2.5	26.9
Total Availability	275 000	9.4	100.0

* The 2.5 per cent vacancy allowance was developed based on CMHC Rental Apartment Vacancy Survey.

Table 3.2.1 shows that the availability of rental housing in a year is substantially less than the total stock. Between 1976 and 1981, it is estimated that about 275 000 rental units were available for occupancy each year. Given a certain level of demand, shortages can be caused by either insufficient new rental completions, high levels of condominium conversion and demolition or renters delaying home purchase or a combination of these factors.

Dwellings left vacant by renters purchasing homes are the single most important component of rental availability. This is due to ownership in

Canada being the preferred form of housing tenure. While there is no data on the incidence of home purchase by renters, it is possible to infer from Census with some adjustments that in the period of 1976 to 1981, about 20 per cent of renters had become homeowners.

The linkage between ownership and rental markets and the impact of depressed home purchase on the rental market evident in most of 1981 and 1982 were discussed in the previous section. Based on the estimates in Table 3.2.1, and holding demand constant, a 10 per cent reduction in new addition to the rental stock would result in a two-tenth of one per cent decline in the vacancy rate from 2.5 to 2.3 per cent. The same 10 per cent reduction in home purchase by renters, however, would push the vacancy rate down from 2.5 to 2.1 per cent. More importantly, recent experience has shown that the incidence of home purchase by renters is potentially more volatile than rental starts.

When vacancy rates are declining, it is not always the case that new completions, which are the major component of additions to the rental stock, are low. If declining vacancy rates are caused primarily by weak homeownership demand, programs to stimulate rental production would be inappropriate and risk the possibility of over-production when homeownership demand strengthens.

Historical Perspective Of Vacancy Rate

Traditionally, vacant rental units are considered as serving two purposes in the rental market. The vacancy rate acts as a signal to increase or decrease rental starts, and vacancies allow mobility of households to take place.

When the vacancy rate is low or anticipated to decline, builders and investors are expected to react by increasing rental starts. Similarly, when the vacancy rate is high or anticipated to rise, rental starts are expected to slow down. The failure of the market to respond to tight vacancy rates has in the past prompted governments to initiate what have become known as supply incentives to stimulate the industry in reacting faster to excess demand disequilibrium.

Renters are significantly more mobile than homeowners. This is shown in Table 3.2.2. Vacancies are essential in facilitating mobility. The perfect market situation would be one where communications would allow households to move around without the need of vacant units. However, in the real world, one can only strive to improve the information and communication mechanisms in order to reduce the proportion of vacant units required to make the mobility process more efficient.

Table 3.2.2 Distribution Of Length Of Occupancy By Tenure, 1981*

Occupancy	Owner	Renter
Less Than 1 Year	8.7% (8.7)	32.5% (32.5)
1-2 Years	12.6 (21.3)	26.6 (59.1)
3-5 Years	20.0 (41.3)	20.4 (79.5)
6-10 Years	18.6 (59.9)	11.3 (90.8)
More Than 10 Years	40.1 (100.0)	9.2 (100.0)

* Cumulative distribution in parentheses.

In Canada, the behavior of vacancy rates, particularly over the course of the last five years, has stimulated debates regarding the performance of the rental market. As shown in Table 3.2.3 the national vacancy rate has steadily declined over the past 20 years. Indeed, while the rental market displayed an average vacancy rate of 4.0 per cent over the period 1963-1970, the average rate in the period 1979 to 1983 was only 2.2 per cent.

Table 3.2.3 Vacancy Rate Cycle

Period	1963-70	1971-78	1979-83
Number of Years	8	8	5
High	6.1%	5.0%	3.0%
Average	4.0	2.5	2.2
Low	1.3	1.1	1.2

Various interpretations have emerged from this long-term decline in vacancy rates. Most of these opinions can be summed up under two schools of thought. One of these pertains to a failure of the rental market in meeting demand while the other explains this situation as the result of the downward adjustment in the long run equilibrium or "natural" vacancy rate.

The proponents of the market failure theory suggest that the declining vacancy rate is a direct reflection of deteriorating attractiveness and increasing uncertainty in new rental investments. It is argued that the 1972 tax reform, along with rent controls and continuous government intervention have caused distortions in the rental market to the extent that the market can no longer adjust to changes in supply and demand conditions.

The supporters of the declining natural rate theory argue that the vacancy rate is adjusting to a lower equilibrium level because the rental market is reacting to changing economic and demographic conditions, and because the market has become more efficient over time.

Relationship Between Rental Starts And Vacancy Rates

It has been argued that rental starts are no longer reponsive to changes in vacancy rates. Based on the simultaneous decline in rental construction and vacancy rates over the past several years, proponents of this theory concluded that the rental market has failed.

An equation relating apartment starts to renter household formation, government assisted rental starts and vacancy rates was estimated based on observations in 22 metropolitan areas for 1974 and 1978 to ascertain whether vacancy rates were statistically significant. The detail discussion of the regression is in Appendix 2. The results show that vacancy rates were inversely related to rental starts and that the relationship was statistically significant at higher than 95 per cent confidence level.

A similar regression was also estimated at the metropolitan level for 1982 and 1983. The inverse relationship was evident although it was statistically significant at a lower 85 to 90 per cent confidence level.

These regression results do not suggest failure in the rental market. Vacancy rates were and still are a key market signal governing the rate of starts. The simultaneous decline in rental construction and vacancy rates over the past several years is due to changing demographic conditions as discussed in the previous section and the structural changes in vacancies in the rental stock.

While the statistical analysis provides support to the inverse relationship between vacancy rates and rental starts, it was not able to bring out some of the more important points.

First, market reaction is a function of major variations in vacancy rates. This means that minor variations in vacancy rates are not likely to bring about an adjustment in starts. As not all builders perceive the market in the same manner, only a percentage of them may react by building more or fewer rental units.

Second, market reaction is a function of the vacancy rate behavior over a given period of time. That is to say, market reaction will be less obvious

if variations in vacancy rates over a given period are narrow because fluctuations in periods such as the post 1979 period will be less erratic and therefore less noticeable or important to developers.

Third, market adjustment will not result in symmetrical adjustment in starts. That is to say, starts will not adjust in the same magnitude to equal upward or downward fluctuations in vacancies.

Fourth, starts will adjust to vacancy rates only in as much as the economic situation is supportive. The degree of adjustment can be delayed significantly in the absence of accommodating conditions.

Finally, starts will usually adjust to vacancy rate fluctuations with a lag. While this lag has been traditionally considered to be between one and a half years and three years, the lag in the adjustment process will again be a function of the prevailing and anticipated economic conditions.

Structural Changes In Vacancy Rates

The concept of a "natural" rate of vacancy in the rental market is borrowed from labor market literature. In standard macroeconomic models, it is believed that there exists a minimum unemployment level which is unresponsive to demand. This residual unemployment is partly voluntary and partly due to frictions in the labor market.

In the rental market, vacancies are also partly voluntary, as some landlords may deliberately keep units vacant to maximize rent, and partly frictional due to events such as turnover or the rent-up period in newly-completed buildings.

Before the high interest rate experience of the past several years, it was thought that the natural vacancy rate should be about 4 per cent. This was the average vacancy rate in the 1963 to 1970 period as shown in Table 3.2.3. It was also thought that a 4 per cent natural rate was the optimal level in relation to the mobility pattern of Canadian renters.

The proponents of the declining natural rate theory suggest that several structural changes have altered the relationship between the natural rate and mobility to the extent that the same mobility pattern can now be supported by fewer vacant rental dwellings.

First, the level of inventory is highly sensitive to interest rates. High interest rates in the past several years and the expectation or continuing volatile monetary conditions have forced rental owners to be more conscious of vacancies. This behavior is also evident among builders of single-family homes. The days when one could buy from a large selection of completed houses are over as most builders are now marketing their products on a pre-sold basis.

Second, provincial rent controls may have reduced mobility among renters living in controlled units. The only piece of evidence available is a study conducted by George Fallis and Lawrence Smith for CMHC. Based on a survey of about 1 300 renters in Toronto, the results show that the turnover rate of rent controlled units was much lower than on uncontrolled units. Between July 1979 and October 1982, 90 per cent of the occupants of uncontrolled dwellings surveyed had moved while only 53 per cent of the occupants of controlled dwellings surveyed had moved. During the same period, the average number of moves in the controlled sector was 0,9 as compared to 2.0 in the uncontrolled sector.

Third, the rental market may have become more efficient in facilitating the same mobility with fewer vacant dwellings. This factor remains largely a hypothesis until data becomes available for testing.

Fourth, there have been suggestions that the behavior of some landlords may have changed from rent maximization to turnover minimization. This change can be explained by the long-term decline in rental demand, which has the effect of lengthening the period of vacancy. In an environment of long-term

rising demand, such as the first half of the 1970's, over-production takes relatively little time to work through the market. This underlying strength in demand tends to provide an incentive for landlords to maximize rent. The behavior toward minimizing turnover will cause the natural vacancy rate to adjust downward.

3.3 Economics Of Rental Investment

It was argued in the previous section that vacancy rates are the key indicator of excess demand or excess supply. Empirical evidence was also presented to illustrate the inverse relationship between apartment starts and vacancy rates. The results shown in Table 3.4.3 (page 18) suggest that the sensitivity of apartment starts to vacancy rates has declined somewhat. This reduction in the elasticity of apartment starts was due to the dominance of reduced attractiveness in new rental investment (which has the effect of decreasing the elasticity) over the downward adjustment in the natural rate of vacancy (which has the effect of increasing the elasticity).

The profitability of investing in residential rentals is measured by cash flow, and before and after tax rate of return on equity. Cash flow is determined by rents, occupancy rate, operating expenses, and debt carrying charges. The before tax rate of return is the sum of the capitalized cash flow and the price appreciation of the property. The effect of taxation on the rate of return is complex and difficult to generalize.

Movements In Rent And Cost

In real estate analysis, the earning power of a property is measured by the ratio of the purchase price (existing property) or the cost (new building) to the rental income it generates. This ratio is termed the gross rent multiplier and its reciprocal is the rental rate. Table 3.3.1 shows the gross rent multiplier and rental rate of unassisted new rental projects in Toronto.

Table 3.3.1 Gross Rent Multiplier And Rental Rate in Toronto*

Year	Average Cost	Annual Rent	Gross Rent Multiplier	Rental Rate	No. Of Units
1968	$14 429	$2 134	6.7615	14.79%	19 110
1969	14 927	2 221	6.7208	14.88	13 335
1970	15 245	2 330	6.5429	15.28	5 956
1971	16 133	2 402	6.7165	14.89	9 195
1972	16 955	2 483	6.8284	14.64	9 628
1973	19 134	2 718	7.0397	14.21	10 661
1974	19 515	2 766	7.0553	14.17	1 887
1981**	48 121	6 724	7.1566	13.97	888

* Unassisted apartment structures (more than 4 stories) in Toronto approved under the NHA. Rent includes parking and other revenue.

** There were only 1 169 units recorded in the 1975 to 1980 period. Due to possible bias, these units were excluded.

For example, in 1981, the average annual rent of an average apartment in Toronto costing $48 121 to build was $6 724. This is equivalent to a gross rent multiplier of 7.1566, and a rental rate of 13.97 per cent. The rental rate is analytically more useful. It approximates the rent structure in the market.

Table 3.3.2 Expense Rate Of New Rentals In Toronto

Year	Annual Rent	Annual Expenses	Expense Rate
1968	$2 134	$ 905	42.41%
1969	2 221	938	42.23
1970	2 330	937	40.21
1971	2 402	949	39.51
1972	2 483	970	39.07
1973	2 718	1 093	40.21
1974	2 766	1 109	40.09
1981	6 724	3 025	44.99

Operating a rental unit involves expenses such as property taxes, insurance, heating and utility, repairs and maintenance, and management. Adding to these expenses is the allowance for vacancies. Table 3.3.2 shows the average operating expense of new unassisted rental projects in Toronto. The expense rate is defined as operating expense as a per cent of rental revenue.

Although the 2 tables show that the rental rate has declined and the expense rate has increased, the movements were not very significant. Based on these rates and the assumption of zero financing (in order to remove the effect of interest rates), the before tax rate of return from the cash flow in the first year was 8.5 per cent in 1968 and 7.7 per cent in 1981. It seems that the combination of declining rental rate and increasing expense rate between 1968 and 1981 have not had a significant impact on the profitability of new rental investment.

The Principle Of Leverage

Leverage is a key consideration in the economics of rental investment. There are two kinds of leverage. First, financial leverage or the ability to use borrowed money to increase the size of the cash flow and consequently the return on investment during the holding period of the property. Second, price leverage or the ability to use borrowed money to increase the return brought about by price appreciation when the property is disposed.

The effectiveness of financial leveraging is determined entirely by the level of interest rates in relation to the rate of return from the cash flow before financing. Financial leveraging can only increase the rate of return if the interest rate on borrowed money is lower than the rate of return before financing.

Table 3.3.3 Impact Of Interest Rates And Financing On The First Year Rate Of Return, 1968/81

Interest Rates	Per Cent of Financing 1968* 0	25	50	75	1981** 0	25	50	75
6%	8.5	9.4	11.0	16.1	7.7	8.3	9.4	12.7
10	8.5	8.0	7.0	4.1	7.7	6.9	5.4	0.7
14	8.5	6.7	3.0	- 7.7	7.7	5.6	1.4	-11.3
18	8.5	5.4	- 1.0	-19.9	7.7	4.3	-2.6	-23.3

* Rental rate and expense rate of 14.79 and 42.41 per cent, respectively.

** Rental rate and expense rate of 13.97 and 44.99 per cent, respectively.

Table 3.3.3 shows that leveraging would only increase the rate of return if interest rates were below 8.5 per cent in 1968 and below 7.7 per cent in 1981. For example, at a 6 per cent rate of interest, the first year rate of return would increase from 9.4 per cent under 25 per cent financing to 16.1 per cent under 75 per cent financing in 1968. Mortgage rates averaged 8.62 per cent in 1968 and 18.15 per cent in 1981. This sharp escalation in

interest rates has largely eliminated the possibility of financial leveraging. At 18.15 per cent interest rates, the maximum financing without incurring negative cash flow in the first year is only 42 per cent.

The effectiveness of price leveraging is more obvious. For a given rate of price appreciation, the higher the percentage of financing, the higher the rate of return to equity. For example, a 10 per cent price appreciation translates into a 100 per cent return if the property is financed with a 90 per cent mortgage while the return is only 50 per cent if the property is mortgaged for 80 per cent.

With high interest rates, new rental projects generally cannot be financed with high ratio mortgages without incurring negative cash flow. However, low ratio mortgages further erode the effectiveness of price leveraging. The inability to apply leveraging under high interest rates is the primary cause of deteriorating rental profitability.

For investors of existing rentals, high interest rates reduce the ability to refinance and the extent to which equity built up during the holding period can be taken out. Before the unstable inflation and volatile interest rate environment since the mid-1970's, there was a presumption that the initial investment could be recaptured fairly quickly by remortgaging.

Rate Of Return

The rate of return is the sum of the cash flow generated by the property, the interest earned on the cash flow, and the capital gain, expressed as a per cent of the total investment. If the cash flow is negative in the early years of the project, the total investment is the sum of the initial investment plus the discounted future cash outlays.

A computer model to simulate the cash flow pattern and the rate of return in an environment of high inflation and high interest rates was developed and the results are shown in Table 3.3.5. The impact of the degree of financing on the rate of return is summarized in Table 3.3.4.

Table 3.3.4 Rate Of Return

	Per Cent Of Financing			
	80%	70%	60%	50%
Initial Investment	$10 000	15 000	$20 000	$25 000
Future Cash Outlays	2 753	1 304	332	0
Total Investment	12 753	16 304	20 332	25 000
Future Value Of Cash Flow	19 849	28 119	38 234	50 831
Capital Gain	61 152	61 152	61 152	61 152
Total Return	81 001	89 271	99 386	111 983
Annual Rate Of Return	20.3%	18.5%	17.2%	16.2%

The calculations assumed a rental rate of 13.97 per cent, an expense rate of 44.99 per cent, a mortgage rate of 14.50 per cent, and a cost of $50 000 for the rental unit. Rents and expenses were assumed to escalate according to the inflation experience of 1975 to 1983 but in the reverse order. Future cash outlays were discounted backward at the mortgage rate. The cash flow was also assumed to be accumulating interest at the mortgage rate. Finally, the price of the rental unit was assumed to parallel the assumed inflation pattern.

Table 3.3.5 Impact Of Financing On Cash Flow

	80% Financing		70% Financing		60% Financing		50% Financing	
	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative
Year 1	-1 787	- 1 787	-1 083	- 1 083	- 380	- 380	324	324
2	-1 172	- 2 959	- 470	- 1 553	234	- 146	937	1 261
3	- 448	- 3 407	256	- 1 297	958	812	1 660	2 921
4	254	- 3 153	954	- 343	1 656	2 468	2 358	5 279
5	838	- 2 315	1 540	1 197	2 240	4 708	2 941	8 220
6	1 386	- 929	2 084	3 281	2 784	7 492	3 483	11 703
7	2 159	1 230	2 858	6 139	3 556	11 048	4 254	15 957
8	2 834	4 064	3 530	9 669	4 227	15 275	4 924	20 881
9	3 425	7 489	4 121	13 790	4 815	20 090	5 510	26 391
10	4 367	11 856	5 059	18 849	5 753	25 843	6 446	32 837

Assumptions

Cost Of Building	$50 000
Rental Rate	0.1397
Expense Rate	0.4499
Mortgage Rate	0.1450
Inflation Factor	Rents and expenses escalating according to the 1975-83 (reverse order) inflation pattern:

Year 2	0.0581	Year 5	0.1017	Year 8	0.0801
3	0.1079	6	0.0915	9	0.0751
4	0.1247	7	0.0900	10	0.1078

Since the simulations are for cross comparison purposes, the choice of a particular inflation pattern is not important.

The simulation results suggest that while lowering the degree of financing would reduce or eliminate the negative cash flow caused by high interest rates, it would at the same time lower the overall rate of return. This is due to the positive relationship between the degree of financing and the effectiveness of price leveraging.

The tilt effect of the equal payment mortgage when interest rates are high has been extensively documented in recent years. This tilt effect is due to the fact that when there is inflation, the constant nominal mortgage payments when expressed in real terms are no longer constant but decline over the term of the loan. The result is that mortgage payments become less affordable in the early years and more affordable in the later years of the amortization period.

The negative cash flow with high ratio mortgages shown in the simulations is due to the tilt effect. More importantly, inflation also affects the composition of the rate of return. With inflation, high ratio financing trades off cash flow with capital gain and low ratio financing trades off capital gain with cash flow. This is illustrated in Table 3.3.6

Table 3.3.6 Composition Of The Annual Rate Of Return*

Degree Of Financing	Cash Flow Return	Capital Gain Return	Total Rate Of Return
80%	5.0(24.6)	15.3(75.4)	20.3(100.0)
70	5.8(31.4)	12.7(68.6)	18.5(100.0)
60	6.6(38.4)	10.6(61.6)	17.2(100.0)
50	7.4(45.7)	8.8(54.3)	16.2(100.0)

* Figures in parentheses are relative shares.

Recent writings of the problems in the rental market have focused on the gap between the economic and market rents. The economic rent is usually defined as the level of rent necessary to yield a certain rate of return from the cash flow after operating expenses and debt carrying charges. It is a useful concept only in an environment of zero or low and stable inflation. With inflation, the tilt effect of the equal payment mortgage causes the economic rent to be higher than the market rent in the initial years, and the economic rent to be lower than the market rent in the later years. While this tilting of the pattern of cash flow is a distortion, it has little or no effect on the overall rate of return.

The attractiveness of investing in real estate is the ability to leverage. While high inflation and high interest rates have no impact on the relationship of the higher the leverage the higher the rate of return, they complicate the viability calculation by bringing in negative cash flow in the early years of the holding period. This negative cash flow is a major cause of uncertainty in rental investment today, particularly in those provinces with rent controls.

In a recent study conducted by George Gau of U.B.C., working with a sample of 140 apartment buildings and 71 commercial properties in Vancouver, Gau concluded that between 1971 and 1979 investors in apartments realized average after tax return on equity of 24.4 per cent while investors in commercial properties realized 19.7 per cent. The largest component of the realized return could be attributed to capital appreciation. In the same period, nearly all other financial assets realized negative real after tax return.

Effects Of Rental Programs

A number of rental programs to address the cash flow problem have appeared since the mid-1970's. Although the MURB tax incentives introduced in 1974 were aimed at restoring the deduction of capital cost allowance (to create a tax loss taken away in the 1972 tax reform), the effect was to enable investors to receive some offsetting tax benefits during the initial years

when negative cash flow is a problem. According to a 1982 study conducted by George Gau and Anne Wicks, these benefits are usually capitalized into the market prices of MURB units.

The ARP and the succeeding GPM programs were designed to address the root cause of the cash flow problem. The ARP assistance was in the form of interest-free second mortgages, while the GPM instrument allowed the investors to restructure the pattern of mortgage payments through an initial write-down technique thus enabling a better match between rental revenue and debt carrying charges over time when there is inflation. Because there is no built-in subsidy, and the higher risk of GPM, insurers and lenders have been reluctant to provide the high loan levels desired by developers.

The CRSP program is similar to the ARP program with the exception that the amount of the interest-free loans varies with the gap between the economic and market rents.

The intent of these programs (except GPM) is to bring about a pattern of cash flow in an inflation environment that is possible only when inflation is low and stable through direct subsidies or indirect tax expenditures. The unintended effect however is the slowing down of the speed in which the industry adjusts to the new reality. The on and off nature of government programs may have also created some uncertainty and reluctance to respond to the changed market conditions.

3.4 Government Intervention

In 1982, the Economic Council of Canada released a report entitled "Intervention and Efficiency". The report examines the economic efficiency of government loan guarantee programs and credit agencies in 4 major areas. They were government assisted business loans and loan guarantees, government credit and credit insurance available to exports, farm assistance, and housing finance and construction.

The report outlines 4 major elements of market failure that may justify government intervention: improper functioning of the market, externalities, public goods, and uninsurable risks. These motives for intervention are all addressing problems internal to the market. There is a fifth motive which relates to using a particular market as leverage to effect economic stabilization. In the past several years, housing has often been stimulated in times of economic downturn in order to reignite growth because of the high multiplier affect of housing on employment generation.

This section will concentrate on the effectiveness of government intervention in addressing the problem of improper functioning of the market and the municipal approval process and regulations in dealing with externalities. The issue of public goods has been discussed in a companion discussion paper "Future Directions For Social Housing Policy". The appropriateness of continuing public provision of insurance against mortgage default is currently under evaluation, and the role of housing in the national economy will be discussed in another study.

Government Expenditures On Rental Housing

In a recent study conducted by Arthur Andersen and Company for the Canadian Home Builders' Association, it was found that between 1976 and 1982 the combined federal and provincial expenditures on rental housing amounted to nearly $5.5 billion in current dollars. Approximately 60 per cent of the total or $3.3 billion was at the federal level and the remaining 40 per cent or $2.2 billion was at the provincial.

The breakdown of the expenditures is shown in Table 3.4.1. Although most of the market oriented programs have terminated, the expenditures will continue for some time. For example, the tax write-offs of MURBs and the 15-year interest free loans under CRSP. Based on a 10 per cent discount rate, the present value of the expenditures under these programs balloon to approximately $8.3 billion. The federal share will be almost four-fifth or $6.5 billion while the provincial share would be the remaining one-fifth or $1.8 billion.

Table 3.4.1 Federal And Provincial Expenditures On Rental Housing, 1976-82*
(Current $ Millions)

	Federal	Provincial	Total
Shared Programs			
Non-Profit and Cooperative	$ 418	$ 31	$ 449
Public Housing	1 674	1 405	3 079
Private Rent Supplement	78	133	211
Unilateral Programs			
Rental RRAP	113	0	113
ARP	139	0	139
CRSP	1	0	1
Other Provincial Programs	0	165	165
MURB Program	883	436	1 319
Total	3 306	2 170	5 476

*See Appendix 3 for details.

The $5.5 billion amounted to 5.7 per cent of the level of total residential construction expenditures in the national account in the comparable period, and in relation to the level of total government expenditure, the share of spending on rental housing was slightly less than 1.3 per cent.

Impact of Government Expenditures On Rental Starts

In the last 10 years, 3 major market oriented rental programs have been in existence. The MURB program was announced in the November 1974 federal budget, extended three times, in 1978, 1979 and again in 1981. The ARP program was originally introduced in April 1975 but was substantially modified when it was re-introduced in the Federal Housing Action Program package in November of the same year. ARP was terminated in 1978. The CRSP program was announced in the November 1981 federal budget and is now approaching the end.

Table 3.4.2 shows that the MURB, ARP and CRSP programs introduced in 1974, 1975 and 1981, respectively, were motivated by low vacancy rates and depressed apartment construction. Approximately 327 000 MURB units, 121 300 ARP units and 21 000 CRSP units were approved from 1974 to 1983. It should be noted that most of the ARP units would also have MURB status and that not all approvals would result in housing starts.

Table 3.4.2 Background Of The Three Rental Programs

Year	Apartment Starts	Vacancy Rate	Rental Program	Year	Apartment Starts	Vacancy Rate	Rental Program
1971	106 200	4.4%		1977	92 300	1.9%	MURB/ARP
1972	103 700	3.6		1978	77 300	2.7	MURB/ARP
1973	106 500	2.8		1979	58 400	2.9	MURB
1974	74 000	1.8	MURB	1980	48 300	2.3	MURB
1975	70 400	1.2	MURB/ARP	1981	61 600	1.4	MURB/CRSP
1976	89 300	1.2	MURB/ARP	1982	53 200	1.7	CRSP

In relation to the declining apartment starts levels and persistently low vacancy rates, it would appear that the activity generated by the MURB, ARP and CRSP programs have had limited impacts on the market. This hypothesis was tested by regressing apartment starts with renter household formation, the level of ARP/MURB starts, vacancy rates and socially-assisted apartment starts. Two pooled cross-sectional regression equations were estimated based on data at the metropolitan level and over the periods 1974/78 and 1982/83, respectively. A detailed discussion of these regression results is presented in Appendix 2.

Table 3.4.3 Regression Results

	1974/78		1982/83	
Variables	Regression Coefficient	Minimum Confidence	Regression Coefficient	Minimum Confidence
Renter Household	0.926	99.5%		
18-24 At Home			0.028	99.5%
Per Cent Renters			16.016	97.5
ARP/MURB Starts	- 0.281	95.0		
CRSP Starts			0.300	70.0
Vacancy Rate	-150.069	97.5	-126.122	85.0
Social Housing	2.293	99.5	0.360	75.0
Time Dummy	412.797	85.0	-238.534	75.0
Number of Observations		44	44	
Coefficient of Determination		90.4%	78.1%	
Significance of Regression		99.0%	99.0%	

In the first regression, 1974 with no market oriented rental programs was pooled together with 1978 in which the ARP and MURB programs were available. The results presented in Table 3.4.3 show that all variables with the exception of the time dummy were statistically significant at the usual criterion of 95 per cent level of confidence. Renter household formation was positively correlated with apartment starts and vacancy rates were negatively correlated. These relationships were consistent with economic theories. With respect to the two government variables, it was found that the effects on starts were negative in the case of ARP/MURB and positive in the case of socially-assisted starts.

The experiment was repeated in the second regression with data in 1982 and 1983. In this regression, children between ages of 18 and 24 living at home, and the probability of renting approximated by observed tenure choice at the metropolitan level were used as a proxy for renter household formation. At a 95 per cent level of confidence, only the two demographic variables were statistically significant. Although vacancy rates showed the expected inverse relationship with apartment starts, they were only significant at a confidence interval of between 85 and 90 per cent. Both CRSP and socially-assisted starts were only significant at 70 and 75 per cent, respectively.

Displacement Effects Of Rental Programs

The crowding-out effects of fiscal spending and government borrowing on private sector activity and interest rates have been a long-standing topic of debate among economists.

In the early 1970's, articles in housing literature began to question whether subsidized housing starts have been a complete add-on to unsubsidized starts and whether housing starts would have been the same had the subsidy programs not existed. While the Economic Council study referred to at the beginning of this section did not specifically address the issue of displacement, the study found that a 10 per cent interest rate subsidy on CMHC loans (for example, a reduction from 13 to 11.7 per cent) would increase housing starts by 3 per cent and the stock of housing by 2 per cent. Based on these simulation results, the report concluded that the response of housing to loan subsidies is likely to be small.

The results shown in Table 3.4.3 appear to suggest that the ARP and MURB programs have displaced unassisted starts by an estimated 28 per cent. The effect of the CRSP program however could not be established as it was not sufficiently significant statistically. The impact of socially-assisted starts in the 1974/78 test period was a complete add-on to unsubsidized starts and the absence of displacement was statistically very significant. The add-on effect became less significant in the 1982/83 test period.

One explanation for the opposite displacement effects between market oriented subsidized starts and socially-assisted starts is the mode of the subsidy. Programs such as ARP, MURB or CRSP provide subsidies to the producers of rental housing. To the extent that these subsidies do not result in lower rents and consequently do not expand the demand base for rental housing, subsidized starts would tend to displace unsubsidized starts. On the other hand, socially-assisted starts when targetted tend to increase housing consumption and raise the level of starts.

A recent study funded by the U.S. Department of Housing and Urban Development found that between 1961 and 1977, the nearly 2 million subsidized housing starts in the United States had displaced approximately 80 per cent of the unsubsidized starts. The report also concluded that subsidized starts targetted at the poor may or may not have a similar effect. The high level of displacement was due to conventionally financed subsidized starts significantly reducing the supply of mortgages available for unsubsidized starts. In Canada, there is no evidence to indicate that the displacement was caused by crowding out in the mortgage market. As a result, the magnitude of displacement, ceteris paribus, is lower in Canada compared to the United States.

Table 3.4.4 Subsidized and Unsubsidized Apartment Starts In Urban Canada, 1982-83

	Subsidized Starts	Unsubsidized Starts	Total Starts	Proportion Of Subsidized
BC	3 687	9 472	12 159	28.0%
Alta	3 615	11 221	14 836	24.4
Sask	884	5 702	6 586	13.4
Man	1 682	897	2 579	65.2
Ont	13 502	15 126	28 628	47.2
Que	5 357	15 707	21 064	25.4
NB	214	142	356	60.1
NS	562	1 171	1 733	32.4
PEI	177	68	245	72.2
Nfld	107	267	374	28.6
Canada	29 787	59 773	89 560	33.3

There is a belief that the proportion of unsubsidized starts in recent years has declined to extremely low levels. This view was expressed in the recent CIP&EC submission to the Thom Commission and in a recent study commissioned by CHBA. However, Table 3.4.4 shows that approximately one-third of the apartment starts in 1982 and 1983 were assisted under the various sections of the NHA. The 33.3 per cent figure is understating the actual proportion of subsidized starts as assisted apartment starts under the global funding arrangement with the provinces and lagged social housing and MURB starts were not included in the table. It is estimated that the correct figure is about 47 per cent. Between 1976 and 1978, when both ARP and MURB programs were operational, the proportion of assisted starts was nearly 50 per cent. Similar to 1982-83, there is some downward bias in the 50 per cent figure. To the extent that displacement was a consideration, the degree of displacement has been lower in the last couple of years.

Provincial Rent Review

Rent controls were brought in by the provinces as a support to the federal wage and price control program introduced in October 1975. By the end of 1975, rent controls were implemented in all provinces although rent controls in Quebec can be dated back to 1951 and in British Columbia since March

1974. Despite the dismantling of the Anti-Inflation Program in 1978, rent controls are still presently in place in all but British Columbia and Alberta. Table 3.4.5 shows that 3 provinces (Manitoba, Quebec and Newfoundland) have made rent controls permanent. For the remaining five, Saskatchewan has partial controls, Ontario is reviewing the present legislation, New Brunswick has reintroduced controls for a period of 2½ years, and Nova Scotia and Prince Edward Island have not announced any firm plans.

Table 3.4.5 Current Status Of Rent Review

	Effective Date	Current Status
BC	March 74	Decontrol process expected to be completed by mid 1984. Rent review is available only for notices of rent increase served before June 1984.
Alta	Dec 75	The Rent Decontrol Act ended controls in 1980. There are no plans to reactivate any form of controls.
Sask	Oct 75	Controls apply only to Regina and Saskatoon.
Man	July 75	The Residential Rent Regulation Act replaced the Rent Stabilization Act in 1980 and is permanent.
Ont	July 75	No plans to decontrol although the Thom Commission is examining the effects of current legislation.
Que	1951	Bill 107 enacted in 1980 made controls permanent.
NB	Oct 75	Controls were phased out beginning in late 1977 and completed in June 1979. New legislation establishing landlord and tenant obligations and standard lease was introduced in January 1983 and will be expired in August 1985.
NS	Oct 75	The Rent Review Act was scheduled to expire in December 1977, but is still in effect.
PEI	Oct 75	The Rent Review Act was scheduled to expire in January 1978 but is still in effect.
Nfld	May 73	The Landlord and Tenant Act was introduced as a permanent piece of legislation.

Inflation affects rental owners differently. For owners of existing rental properties, the impact of inflation is limited to higher operating costs. For investors of new rental buildings, inflation pushes up both capital and operating costs. If rents of both new and existing units adjust fully to inflation, owners of existing rentals would benefit from windfall profits. The windfall profits which owners of pre-1975 rentals could realize are similar to the debate of pricing old and new oil after the 1972 oil shock.

One of the effects of the rent review process is to reduce this windfall profit. There are three key features in a typical rent review program. The first feature is the exemption of rental units built after a specific date or renting for more than a prescribed maximum rent level or classified as non-market housing such as public, limited dividend, non-profit or cooperative housing. This has the effect of segregating the rental market into 2 sub-markets, a larger controlled sector and a smaller uncontrolled sector.

The second feature is the rent increase ceiling in relation to the underlying rate of inflation. In the first full year of rent review experience in 1976, most provinces set a ceiling of 8 per cent. This ceiling level was 2.8 percentage points below the average inflation rate of 10.8 per cent in 1974 and 1975 but exceeded the actual rate of inflation of 7.5 per cent in 1976 by half of one per cent.

The third feature is the extent of cost pass-through allowed and the actual rent increases approved by the provincial rent review agencies. Data on the rent review process are poor. However, in the case of Ontario and Nova Scotia, it appears that rent controls did not result in substantially lower rent inflation in the controlled sector.

Table 3.4.6 Average Rent Increases In Controlled Units

Ontario	Approved average increase of 10.7 per cent in 1979/80 in relation to an average inflation rate of 9.7 per cent over the comparable period, and average increase of 11.6 per cent in 1980/81 as compared to inflation averaging 11.3 per cent.
Nova Scotia	Average increase of 11 per cent in 1980 and actual inflation of 10.2 per cent.

It is certainly more accurate to describe the provincial programs as 'rent review' rather than 'rent controls'. While most provinces have set a maximum allowable increase in the early years of their implementation, presently, only three provinces, Ontario, Nova Scotia and Manitoba have a ceiling.

The Development of Split Markets

The development of split markets is a key distortion caused by rent controls. In the lower price market, the difference in the price of controlled and uncontrolled units is assumed to be virtually non-existent because inflated building costs would not allow modest quality rental units to be built on a viable basis. In the higher price market, which consists of upper mid-range and high quality units, both controlled and uncontrolled units are available.

Due to the significant price differential between controlled and uncontrolled units, those individuals renting controlled units are now less likely to upgrade their living accommodation unless they are able to obtain a higher quality controlled unit.

As a result of the increased preference for older units and therefore higher vacancy rate risk for new buildings, new units will only be built to the point where the marginal increase in rent required to achieve economic levels shifts the total rent structure. Some units in the higher price market which would have been built are no longer viable since the increased risk of producing them at the higher required rent levels offsets the expected return.

Low vacancy rates in the controlled market, combined with a lower number of new rentals create a further distortion. As the filtering process is disrupted, some households migrating from other areas are forced into the uncontrolled sector. They will be forced to rent a quality of accommodation above the level they desire.

Table 3.4.7 Vacancy Rates in Controlled and Uncontrolled Sectors*

	Controlled Sector	Uncontrolled Sector
Hamilton	0.6%	3.0%
Kitchener	0.4	3.2
London	1.9	5.1
Oshawa	0.2	6.1
Ottawa	0.2	0.7
St. Catharines	0.9	1.4
Toronto	0.4	5.6

* CMHC October 1983 Apartment Vacancy Survey

It must be stressed that the filtering process is not halted since households from both the controlled and the uncontrolled market will continue to switch

from rental to homeownership. Filtering into the vacated units will be composed of those moving to higher quality units from within the controlled market, and those moving from similar or slightly higher quality units in the uncontrolled market to achieve substantial savings in the controlled market. In a recent study commissioned by CMHC, Smith and Fallis found that this distortion has had the effect of increasing rents of decontrolled units above the level that would prevail in the absence of controls. They have also provided some evidence that this distortion may lead to rationing of controlled units at the expense of households with children and young household heads.

Income Redistribution

The redistributive impacts are the focal point of the rent controls debate. Proponents of controls argue that the social benefits accruing to rent controlled tenants in terms of lower rents and security of tenure tend to outweigh the social costs brought about by reduced mobility, rationing of controlled units, the danger of poor maintenance and lower levels of new rental construction.

The issue of using rent controls as a tool to effect redistribution was addressed in a recent study commissioned by the Ontario Ministry of Municipal Affairs and Housing. The study found evidence of income redistribution occuring at the lower income levels, and that more than half of the total benefits have gone to the top 60 per cent of households by income. Moreover, half of the total cost in terms of rent reduction was borne by the top 27 per cent of the income distribution. Since not all high income households are rental property owners, the cost of rent reductions are borne by an even lower proportion of the population i.e. landlords. Hence, a larger proportion of the population with equal incomes to those of landlords escape the costs of income redistribution through rent controls.

The study also provides some evidence that the rental savings of tenants with children is less than the savings of non-elderly individuals and childless couples.

In short, while the study has found some evidence that redistribution of income occurs from higher to lower income groups, it has also found rent review to be an inefficient instrument to redistribute income.

Municipal Approval Process and Regulations

The issue of whether municipal regulations and the approval process are contributing to the decline in rental investment was addressed in a recent telephone survey of CMHC field offices. The survey was targetted at appraisers and program managers. The following offices were contacted; Victoria, Vancouver, Prairie Regional Office, Toronto, Kitchener, Thunder Bay, Ottawa, Hull, Longueuil, Montreal, Quebec, Halifax and St. John's.

The result of this investigation pointed to a consensus that local regulations and the municipal approval process have not been a serious impediment to rental investment and development. While some offices indicated that most rental development takes place in the context of municipal and regional plans, which therefore minimizes potential delays caused by zoning and similar approval process, other offices indicated that municipalities work very hard in accommodating developers in expediting their applications for rental development particularly in times of low rental production.

The only instance where the municipal approval process can impact seriously on rental investment decisions relates to downtown redevelopment. However, investors in residential rental redevelopment must face the same approval process as investors in other types of redevelopment such as office or commercial buildings. While it is very difficult to measure the impact of this situation on developers' cost structure, who must operate in a municipality that is less efficient in expediting the approval process of rental projects, it was mentioned that in the worse case, developers could face additional costs of less than one half of one per cent.

A formal survey of rental entrepreneurs conducted by Merrill Lynch for CMHC is presently underway. The findings will allow a more conclusive description of the impacts of municipal regulations and the approval process.

4. Conclusions

The state of the rental market described in the previous chapter is not unique to Canada. In the United States, similar trends of declining rental starts, tightening vacancy rates, increasing rent-income ratios, rental profitability squeeze, and pressuring for rent controls have also been observed and documented. This has led to the U.S. Congress directing HUD to study the rental problem as a part of the Housing and Community Development Act of 1980.

In late 1980, HUD sponsored a conference of leading housing experts to determine the nature of the rental crisis, the policy prescriptions, and the areas of additional research. The majority opinion was against the crisis view and in favour of changing market conditions as the explanation of the events.

The analysis of the evidence in this paper also rejects the hypothesis that the rental market in Canada has failed to function. High interest rates, increasing uncertainty and the lack of political determination to phase out rent controls in most of the provinces have made the transition from a growing to a declining rental market more difficult. While supply oriented programs such as MURB and ARP have appealed to builders operating in a difficult environment, these programs may have also slowed down the speed in which the industry adjusts to the new reality.

The findings summarized in this chapter are an attempt to define the environment that a rental policy must acknowledge and has to operate within.

The requirement for new rental housing is anticipated to decline. The path of this long-term reduction in rental demand is difficult to predict with precision. To the extent that past experience is any guide, there will be periods of over and under production. In a declining market, over-production generally will take a longer time to work through the market.

The close linkage between the ownership and rental markets has in the past demonstrated that the instability of housebuying will add to the instability of the rental market. From a stabilization policy stand-point, a smoothly functioning homeownership market is a necessary condition for a stable rental sector.

As homeownership becomes increasingly attractive to higher income renter households, the composition of the renter population also becomes increasingly concentrated among the youngest and the oldest, and among non-family one-person households. This has resulted in the number of renter households spending more than 30 per cent of income on rent increasing to more than 500 000. The main cause of the affordability problem is low incomes.

It is estimated that only approximately 30 per cent of the rentals available for occupancy in a year is due to net additions to the rental stock. When vacancy rates are low, it is not always the case that new completions, which are the major component of net additions to the rental stock are insufficient. If low vacancy rates are caused primarily by weak homeownership demand, programs to stimulate rental production will be inappropriate and risk the possibility of over-production when homeownership demand strengthens.

The simultaneous decline in rental construction and vacancy rates over the past several years was not due to a failure in the rental market. It was due to changing demographic conditions and the structural changes in vacancy rates.

There is evidence to suggest that several structural changes have altered the relationship between the natural rate of vacancy and mobility of renters to the extent that the same mobility pattern can now be supported by fewer

vacant rental dwellings. Based on present market conditions, the natural rate today is probably about 2.5 per cent.

It appears that the present poor rental investment climate is not due to rent-cost imbalances. The attractiveness of investing in real estate is the ability to leverage. With high interest rates, new rental projects generally cannot be financed with high ratio mortgages without incurring negative cash flow. However, low ratio mortgages further erode the effectiveness of price leveraging.

The negative cash flow with high ratio financing is caused by the tilt affect of the equal payment mortgage. While the tilt effect has no impact on the overall rate of return, it distorts the pattern of cash flow. This distortion makes high ratio financing trading off cash flow return with capital gain return, and low ratio financing trading off capital gain return with cash flow return.

Negative cash flow complicates the viability calculation. It is a major cause of the uncertainty in rental investment today, particularly in those provinces with rent review.

The combined federal and provincial expenditures on rental housing amounted to some $5.5 billion between 1976 and 1982. The impact of these expenditures has been mixed.

There is evidence to suggest that the ARP and MURB programs have displaced unassisted starts by an estimated 28 per cent, and that the CRSP program has not had any effect on the level of rental construction. The impact of socially-assisted starts however has been adding to the level of unsubsidized starts, with the degree of add-on directly related to the proportion of units targetted to low-income households.

The rent review process causes two major distortions. First, the development of split markets and second, the redistribution of income between tenants occupying controlled and uncontrolled units and between tenants and landlords. The redistribution occurs from higher to lower income groups, and from landlords to tenants. It was also found that the rent review process is an inefficient instrument to redistribute income.

The municipal approval process and regulations have not been a significant factor. A recent informal survey found that municipalities generally work hard in accommodating developers, particularly in times of low levels of rental construction.

The findings of this paper represent an objective assessment of the state of the rental market based on available evidence. The manner in which the rental industry has responded to the new environment will be documented in a survey of rental entrepreneurs presently underway.

5. FUTURE POLICY DIRECTIONS

In the past 10 years, the federal strategy in the private rental sector has been largely premised on the notion of assisting the market to adjust. There is no evidence to conclude that the MURB, APR and CRSP programs have enabled the adjustment strategy to bear results. It may be argued that these programs have actually created disincentives for the industry to react and to adjust to the new reality.

The analysis in this paper suggests that the key problem today is high and volatile interest rates. The uncertainty created as a result is further exacerbated by the various provincial rent review processes, and the trend toward strengthening tenant rights in some provinces. It is clear that reducing inflation and bringing down interest rates remain the most effective means to restore confidence in rental investment, and will provide the provinces with the political reasoning to phase out rent review.

In the meantime, the federal government must resist the pressure to intervene directly in the rental market. To the extent that the federal government believes that the provision of rental housing is mainly a private sector initiative, it must encourage the industry to innovate and to work with the present uncertain environment. In this context, the adjustment strategy becomes one of creating a stable policy climate and the conditions necessary for the industry to come up with solutions (for example, alternative mortgage instruments such as indexed financing) to address a changed rental market. During the period of adjustment, some existing companies will leave and new ones will enter the industry. The federal government must accept the result of the shake-out as this very self selection process will ensure that the industry remains efficient and dynamic.

APPENDIX 1

RELIABILITY OF AFFORDABILITY ESTIMATES

The reader must be cautioned in using the measure of affordability problem of renters as presented in the section dealing with demand factors. The measure used in this analysis was obtained from the 1981 Census (Cat. 92-933 Table 4). An alternative data source i.e. the HIFE data base, was considered but could not be retained for this analysis as no information is available on homeowners housing costs in HIFE 1982.

The following table shows for renters, the absolute frequency and the cumulative percentage frequency by rent-to-income ratios in 1981 using the Census data and in 1982 using the HIFE data. The income data in the HIFE data base relate to the 1981 household income and were deflated to compare with the 1980 household income reported in the 1981 Census. Similarly, the rent data in the HIFE base which represent the 1982 rent was deflated using the CPI rent index to compare with the 1981 rent data reported in the Census.

Incidence of Renter Affordability Problem

Shelter Cost To Income	Census 1981	HIFE 1982
15 %	883,200 (28.5)	1,119,700 (37.3)
16-20	548,000 (46.2)	515,500 (54.5)
21-25	432,200 (60.2)	391,000 (67.5)
26-30	289,300 (69.5)	252,500 (75.9)
31-35	189,500 (75.6)	177,800 (81.8)
36-40	133,700 (79.9)	100,400 (85.2)
41-50	178,300 (85.7)	166,600 (90.8)
50+	443,600(100.0)	277,800(100.0)
Total	3,097,800	3,001,300
Renters Paying More than 30% of Income on Rent	945,000	723,000

While the Census reports 945,000 renter households paying more than 30 per cent of their income on rent, the HIFE 1982 indicated that only 723,000 renters were in that category. The discrepancy between the 1981 Census and the 1982 HIFE is attributable to technical problems with data reporting and differences in definitions.

The income reported in the Census data is believed to have underestimated the income from investment. This certainly explains why average renter household income from Census is lower than average adjusted renter household income in HIFE 1982. The following table compares the 1981 Census income data to the 1982 HIFE adjusted income data by household type.

Average Renter Household Income 1980

	Census(1)	HIFE(2)
One-family households without additional person	$20,243	$21,748
Non-family households of one person only	$11,994	$12,269
All other households	$23,148	$27,180
Total renter Population	$17,587	18,751

(1) Census 1981 Cat 92-933 Table 6
(2) Deflated to 1980

Another source of discrepancy is the difference in the definition of rent between the Census and the HIFE data. The Census average rent is estimated to be ($296) higher than in HIFE data base ($260) which consists only of cash rents plus heating costs.

These two sources of discrepancy explains why the Census reports a larger proportion or renters paying more than 30 per cent of income on rent.

Therefore, the true measure of the incidence of the affordability problem of renters is believed to fall between 723,000 and 945,000.

When those occupying subsidized rental housing and those over-consuming rental housing are excluded, the number of renter households still paying more than 30 per cent of income on rent declines to slightly more than 500 000. This number is usually referred as the core need.

APPENDIX 2

STATISTICAL DECOMPOSITION OF APARTMENT STARTS

In order to develop a rigorous statistical analysis of the factors affecting the levels of apartment starts in individual CMA's, a cross-sectional regression analysis was undertaken. Pooled cross-sectional data was obtained for all Census Metropolitan Areas in the years 1974, 1978, 1982 and 1983. The 1974 and 1978 data was then pooled, and likewise the 1982 and 1983 data. The 1974 and 1978 data was pooled to contrast a year in which no government market assistance programs were available with a year in which both ARP and MURB were available. The 1982 and 1983 data was pooled to examine the effectiveness of CRSP. The specifications and results are as follows:

1974/78 Regression

Variables	Regression Coefficient	T-Statistics
Dummy	412.797	1.286
Renter Household Formation	0.926	9.247
Vacancy Rate	-150.069	-2.398
MURB/ARP Starts	- 0.281	-1.684
Social Housing Starts	2.293	4.361
Number Of Observations	44	
Coefficient Of Determination	0.904	
F-Statistics	102.364	

1982/83 Regression

Variables	Regression Coefficient	T-Statistics
Dummy	-238.534	-0.714
Population 18-24 Living At Home	0.028	4.076
Probability Of Renting	16.016	2.075
Vacancy Rate	-126.122	-1.191
CRSP Starts	0.300	0.642
Social Housing Starts	0.360	0.764
Number Of Observations	46	
Coefficient Of Determination	0.781	
F-Statistics	33.049	

Variables

Apartment Starts - This is the dependent variable.

Renter Household Formation - Average annual incremental change in the number of renter households between 1971 and 1976.

Population 18-24 Living At Home - This is used, in conjunction with the probability of renting, as a proxy for potential rental demand. The number of persons between ages 18 and 24 and living at home was taken from the 1981 Census.

Probability Of Renting - Per Cent of renter households in the 1981 Census.

Vacancy Rates - This is a lagged independent variable. Vacancy rates in December 73, October 77, October 81 and October 82 were matched up with other observations in 1974, 1978, 1982 and 1983, respectively.

MURB/ARP/CRSP Starts - Unpublished CMHC data.

Socially Assisted Starts - Published CMHC data.

Dummy Variable - Zero for 1974 and 1982 and one for 1978 and 1983.

Sample

Data was collected at the CMA level. Hull and Oshawa were excluded from the 1974/78 regression. In the 1982/83 regression, Ottawa and Hull were combined. This was dona due to data limitstions.

Estimation Procedure

The equations were estimated using the ordinary least squares method. Alternatively, the seemingly unrelated regression technique suggested by Arnold Zellner could have been used and it would have produced more efficient estimates in this situation of grouping of equations. However, the gain in efficiency is generally small.

APPENDIX 3

FEDERAL AND PROVINCIAL EXPENDITURES ON RENTAL HOUSING, 1976-1982

The combined estimated federal and provincial expenditures of $5.5 billion (current dollars) in the period 1976 to 1982 is actually a conservative estimate at least as far as the federal portion is concerned. The table below summarizes the budgetary and tax expenditure items and the corresponding federal and provincial yearly expenditures as derived by the firm Arthur Andersen and Co. in a study commissioned by the Canadian Home Builders' Association.

FEDERAL AND PROVINCIAL EXPENDITURES TO ASSIST RENTAL HOUSING

(Million Current Dollars)
1976-1982

Budgetary Expenditures	
Provinces	1,734
Federal	2,423
Tax Expenditures	
Provinces	436
Federal	883
Total Expenditures	5,476
Provinces	2,170
Federal	3,306

The federal assistance to the rental housing market can be grouped into two categories: The direct assistance (budgetary expenditures) i.e. the market and social housing assistance programs and the indirect assistance (tax expenditures) i.e. the tax benefits granted to the housing industry. With this in mind, the following comments can be made:

(1) In estimating the direct government assistance, Arthur Andersen has double counted the federal share of rent supplement which is included under the budgetary item Public Housing. As a result, the total budgetary expenditures of the federal expenditures should be $78 million less over the period 1976-1982.

(2) The Arthur Andersen's estimates of the indirect assistance or tax expenditures have been limited to the MURB program. According to a CMHC internal estimate of the federal government assistance to rental housing, tax savings from three other different sources have provided significant benefits to the housing industry. These and their corresponding estimated annual cost to the federal government over the period 1976-1982 are as follows:

Federal Costs in Tax Reductions to Assist Rental Housing

(Million Current Dollars)
1976-1982

Reduced Fed. Sales Tax on Building Materials	404
Exemption of Construction Equipment from Federal Sales Tax	81
Exemption of Goods in Competition with On-Site Construction from Federal Sales Tax	95
Total Costs	580

As a result, this indirect federal assistance represents an additional $580 million dollars to the estimates of Arthur Andersen.

In short, the total current federal and provincial tax expenditures were approximately $6 billion over the period 1976-1982.